

FPP02 – On-Farm Pilot Project 3 – Windrow Grazing as a Tool to Reduce Energy Consumption and Boost Soil Fertility

Availability: Banner, Cheyenne and Kimball Counties, NE.

Criteria/Requirements for Pilot Project 1

- Operator must have concurrence of Aaron Berger, University of Nebraska Extension Educator, 209 East Third, Kimball, NE prior to scheduling initiated demonstration or on farm research.
- Operators are responsible for any fees and negotiating terms with University of Nebraska Extension.
- Access to the pilot project site must be provided for follow-up educational program or tours.
- Provide annual report according to University of Nebraska Extension requirements to verify that the project is established and being carried out adequately in order to certify this each fiscal year.
- The pilot/research/demonstration cannot be used to promote a commercial product or process. It must focus on demonstrating the strength and weaknesses of a management practice or technology.
- Land requirements: 10-50 acres of cropland.
- Maximum number of participants: 1.
- Length of Pilot Project: 3 years.

Specific Requirements:

The University of Nebraska-Lincoln Extension would be conducting the on farm demonstration project.

Harvested feed costs can be one of the largest expenses to cattle producers. Windrow grazing, sometimes called swath grazing, is a management practice which can significantly reduce harvesting and feeding costs. Swathing the crop and leaving the windrows in the field eliminates the costs of baling, hauling bales off the field and reduces the labor and equipment cost associated with feeding. Grazing windrows in the field also returns nutrients and organic matter from the forage back to the soil that the crop was harvested from. In western Nebraska, 75 to 80% of seasonal precipitation falls in the 6-month period of April through September. Only 20 to 25% of precipitation falls in the 6-month period of October through March. This seasonality of precipitation allows for the swathing of forage crops in early fall and preservation through the fall and winter with minimal deterioration in quality due to weathering. Snowfall the months of October through March can be quite variable. However, extended periods of time when snow cover would prevent swath grazing are limited. Currently windrow grazing is used very minimally in western Nebraska but has been used extensively in other parts of the country and Canada.

The national focus that would be being addressed would be **Energy** and **Soil Quality**.

Energy would be addressed through utilizing windrow grazing of annual forages with cattle which significantly reduces energy and equipment needed for harvesting the crop. Energy would also be addressed through the use of strip grazing to efficiently harvest the windrowed forage produced and leave a majority of the nutrients in the crop back on the ground in the form of manure and urine from the grazing animals.

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Soil Quality would be addressed through improving soil organic matter and the cycling of soil nutrients.

A participant in the demonstration project would need to provide 10-50 acres of crop ground, equipment for preparing the ground and planting the forage combinations, windrowing the crop, assistance with the collection of soil samples and soil testing as well as the collecting of forage samples and forage testing. The participant will also need to provide cattle for grazing of the forages, temporary fencing materials and labor for the management of the cattle. Ideally these demonstration projects take place over a three year period to account for some of the seasonal variation that occurs in weather conditions.

Publicized events around the demonstration would be the use of field days and newsletters to communicate and demonstrate how swath grazing can be used in western Nebraska.

Additional State Documentation Requirements for pilot, research and demo project (prior to initiating CSP contract)

- 1. Copy of project proposal as agreed to with University of Nebraska Extension
- 2. Agreement or documentation of concurrence with University of Nebraska Extension
- 3. A map showing fields where the enhancement will be applied

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In addition, complete the Table below:

Tract	Field(s)	Acres		Acres
	, i	Planned		Applied
		1 1011110		(completed
				Applied (completed by operator)
	-	• 0		by operator)
EX. 1	1	20		20 acres

I certify that the following information meets specifications and has been provided to NRCS:

- 1. Complete the table above and provide a map with delineation of the area where the enhancement was applied including partial fields.
- 2. Photographs of a representative number of fields showing demonstration or research.
- 3. Annual report based on University of Nebraska Extension Service that documents accomplishments (required each year before certified).